



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,948	08/26/2003	Harvey Jay	J07-004	4553
7590		01/02/2008		
R. Neil Sudol				
714 Colorado Avenue				
Bridgeport, CT 06605-1601				
			EXAMINER	
			JOHNSON III, HENRY M	
			ART UNIT	PAPER NUMBER
			3739	
			MAIL DATE	DELIVERY MODE
			01/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,948

Applicant(s)

JAY, HARVEY

Examiner

Henry M. Johnson, III

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-18, 22-29, 31-40, 58, 59, 67, 68, 70-90 and 92-104 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 68, 73-77, 86, 94 and 95 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 080907.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 1-9,12-18,22-29,31-40,58,59,67,70-72,78-85,87-90,92,93 and 96-104.

Election/Restrictions

Applicant's election with traverse of Species VI in the reply filed on October 29, 2007 is acknowledged. The traversal is on the grounds that searching the claims would not be an undue burden on the examiner. This is not found persuasive because the restriction was based on mutually exclusive species, not the search burden. Where two or more species are claimed, a requirement for restriction to a single species may be proper if the species are mutually exclusive. Claims to different species are mutually exclusive if one claim recites limitations disclosed for a first species but not a second, while a second claim recites limitations disclosed only for the second species and not the first [MPEP § 806.04(f) [R-3]].

The other independent claims that involve a skin condition are 1, 68 and 72.

Claim 1 would not anticipate claim 73 as it has no time interval requirement, nor visible damage requirement. Claim 73 would not anticipate claim 1 as it does not positively cite a second application of electromagnetic energy.

Claim 72 would not anticipate claim 73 as it has no time interval requirement, nor requirement for application frequency based on bad exposure frequency. Claim 73 would not anticipate claim 72 as it does not cite a step for determination of degree of exposure.

The periodic, temporally spaced applications of Claim 68 can be broadly interpreted as a time interval and likewise, the predetermined time interval of claim 73 may be interpreted as a periodic, temporally spaced application. Therefore claims 68, 86, 94 and 95 have been rejoined.

Claims 68, 73-77, 86, 94 and 95 will be examined.

The requirement is deemed proper and is therefore made FINAL.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new grounds of rejection. "Non-Coherent Near Infrared Radiation Protects Normal Human Dermal Fibroblasts from Solar Ultraviolet Toxicity" by Menezes, et al., Institut de Recherche sur la Peru, 1998 is used in the rejections that follow. Menezes et al. also provide additional data regarding the state of the art and thus assist in the enablement of the Applicant's invention. The enablement rejections are withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 68, 73, 74, 76 and 94 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over "Non-Coherent Near Infrared Radiation Protects Normal Human Dermal Fibroblasts from Solar Ultraviolet Toxicity" by Menezes, et al., Institut de Recherche sur la Peru, 1998. Menezes et al. teach protecting human cells from ultraviolet (UV) radiation damage by irradiation with infrared (IR) radiation. In one test, the IR radiation was applied for three periods of 30 minutes each prior to UV exposure. This is periodic radiation spaced in time. Since the tests were to determine damage, it is inherent the samples would be damage free at the outset. All radiation includes the parameters of pulse duration, wavelength and intensity; however no specific parameters are required in the claims. Menezes et al. disclose that the effects of the IR radiation are cumulative (Fig. 3), thus multiple exposures

provide more protection and would be used for better protection from higher anticipated intensities of UV exposure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 68, 73, 77 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Non-Coherent Near Infrared Radiation Protects Normal Human Dermal Fibroblasts from Solar Ultraviolet Toxicity" by Menezes, et al., Institut de Recherche sur la Peru, 1998 and a summer beach vacation. Menezes et al. are discussed above, but do not teach indirect exposure to UV radiation. Menezes et al. teaches the sun includes IR and UV radiation and the premise of the teaching is that the IR from sunlight provides protection from the harmful UV radiation. Thus a person going to the beach on a sunny day receives IR and UV radiation simultaneously and some of the radiation is inherently reflected from the sand, thus being delivered indirectly. Clearly, it is obvious to a skilled artisan that the method steps are inherently performed during a visit to the beach on a sunny day.

Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Non-Coherent Near Infrared Radiation Protects Normal Human Dermal Fibroblasts from Solar Ultraviolet Toxicity" by Menezes, et al., Institut de Recherche sur la Peru, 1998. Menezes et al. are discussed above, but do not teach exposure to IR following exposure to UV radiation. Menezes et al. do teach

irradiation with IR before and during and indicate cell protection from such radiation. Therefore it would be obvious to try the IR exposure as a treatment following exposure.

Claim 95 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Non-Coherent Near Infrared Radiation Protects Normal Human Dermal Fibroblasts from Solar Ultraviolet Toxicity" by Menezes, et al., Institut de Recherche sur la Peru, 1998. Menezes et al. are discussed above, but do not teach the application of an exogenous chromophore prior to radiation. The use of chromophores to enhance radiation effects is well known in the art and therefore one of skill in the art would be motivated to use such chromophore on tissue with limited ability to effectively use (absorb) the radiation.

Conclusion

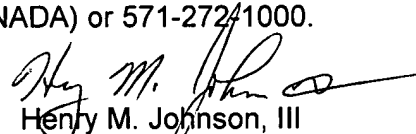
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/647,948
Art Unit: 3739

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Henry M. Johnson, III
Primary Examiner
Art Unit 3739